



ESCHER GROUP™

RiposteTrEx

Product White Paper

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RiposteTrEx - Re-inventing the Postal Network

RiposteTrEx is a secure and reliable Transactional Data Exchange infrastructure designed to efficiently link all the elements and systems that handle business transactions.

RiposteTrEx includes all the necessary elements of the network for the collection, sorting and delivery of transactional data in a secure manner consistent with the manner in which the existing Postal Network traditionally operates.

RiposteTrEx is founded on the **Riposte®** messaging technology that has underpinned Post Office Counters networks worldwide over the past 15 years.

The infrastructure provided by RiposteTrEx assists business enterprises in their need for cost reduction while, at the same time, it remains fully supportive of the Postal Administration framework.

RiposteTrEx

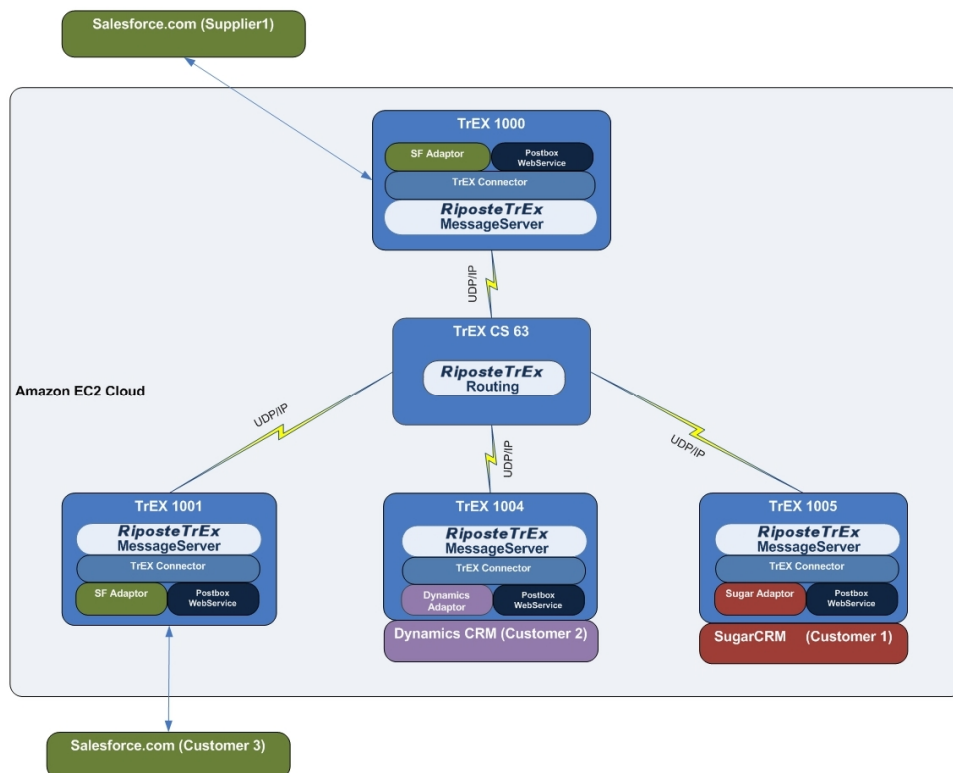
- Relies on a regulated, trusted service operators – the Post Office
- Is impartial
- Provides Collection and Delivery of correspondence
- Is based on standards
- Is naturally asynchronous

RiposteTrEx provides the ideal platform for fostering a new concept of 'E' business, which goes beyond the basic usage of electronic infrastructures currently available. The infrastructure is in fact consistent with the general move towards widely available technology (e.g.: computer usage, broadband, etc.) and it also provide a simple and effective vehicle to help the community in meeting its obligations on reducing carbon footprint.

RiposteTrEx Network

The RiposteTrEx network is comprised of a number of pc nodes connected over a secured connection to a central place. Each node is uniquely identified and it may be defined as a collection point, a delivery point or a collection and delivery point. Nodes may either be connected directly to business systems, may be generally available on a business network or may be connected to a public kiosk device.

RiposteTrEx Architecture



RiposteTrEx Core Software Element

The core software element in RiposteTrEx is the Riposte Message Server. Each node of the RiposteTrEx network is provided with an instance of this software. Each Message Server instance is configured to receive messages either through the secured connection from an adjacent node and provide them to a connected application or through a connected application and send them to adjacent nodes.

RiposteTrEx Collection Service

The RiposteTrEx Collection Service is a software module, responsible for receiving messages through the Sending Interface. This module is accessible, through a published set of APIs, to any custom-built application. The core functionality of the RiposteTrEx Collection Service include receiving and verifying messages.

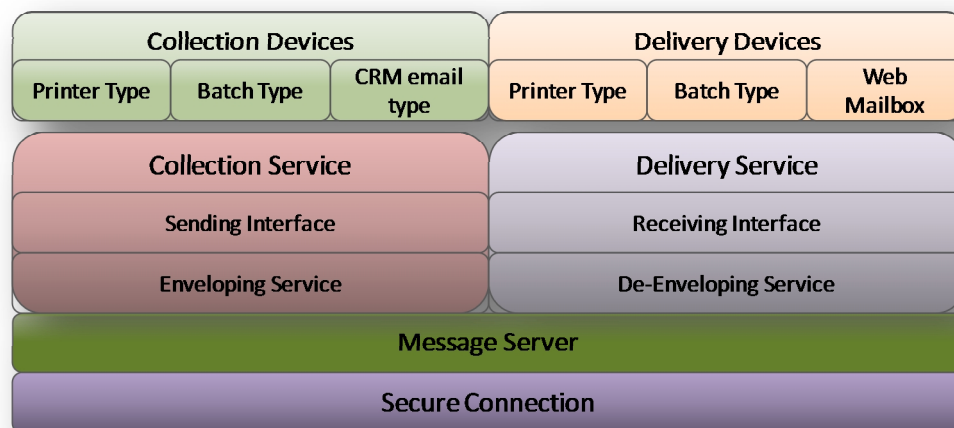
Upon message verification the module then:

- rejects them and returns them to sender (in the event of an invalid message)
- or
- envelopes them, acknowledges receipt and accepts them into the RiposteTrEX secure network infrastructure

The verification process is performed on the basis of existing and sufficient data for delivery addressing purposes and a means of payment for the service.

RiposteTrEx Delivery Service

The RiposteTrEx Delivery Service is a software module, responsible for delivering messaging through the Receiving Interface to the relevant Delivery Device. Similarly to the RiposteTrEx Collection Service, this module is accessible, through a published set of APIs, to any custom-built application. The core functionality of the RiposteTrEx Delivery Service include the receiving of messages from the network through the message server. Upon reception, the module then de-envelopes the message and delivers them to the specific device.



RiposteTrEx Message Exchange

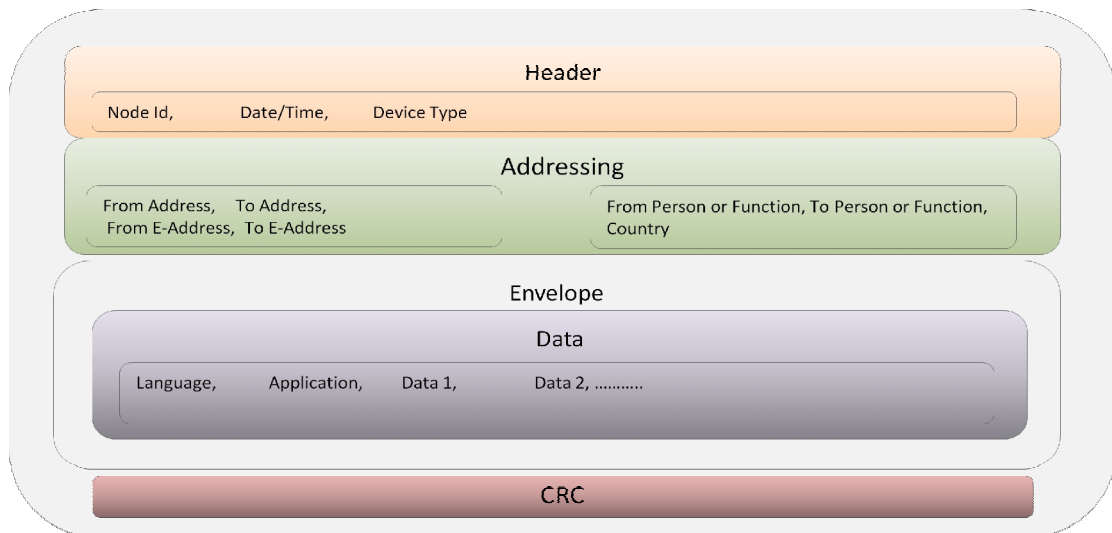
Each RiposteTrEx message is divided into three distinct parts

- System Header
- Correspondence Address
- Data Envelope

The *System Header* contains system data describing the message including date/time of generation, RiposteTrEx node where it has been generated, delivery device where delivered or received from. This data is unique within the entire RiposteTrEx network, either national or worldwide.

The *Correspondence Address* is designed as *mirror* of the traditional correspondence model; it can accommodate sender and receiver physical address, as well as electronic address. The *Correspondence Address* requires that at least one form of Destination Address should be specified, either physical or electronic. Country of destination is required to denote the network provider.

The *Data Envelope* may include a Language identifier and an Application identifier. Riposte ensures the security and integrity of the data included in the Envelope, by providing its robust security layer, in use by postal administrations worldwide, since 1993.



RiposteTrEx Security

Content of the message may be obscured while travelling within the postal network by the addition of techniques applied through this service. All data may be encrypted and de-encrypted during the collection or delivery service. This is a service offered by the network and is separate from encryption that may be applied by the collection device or the application that initiated the original message.

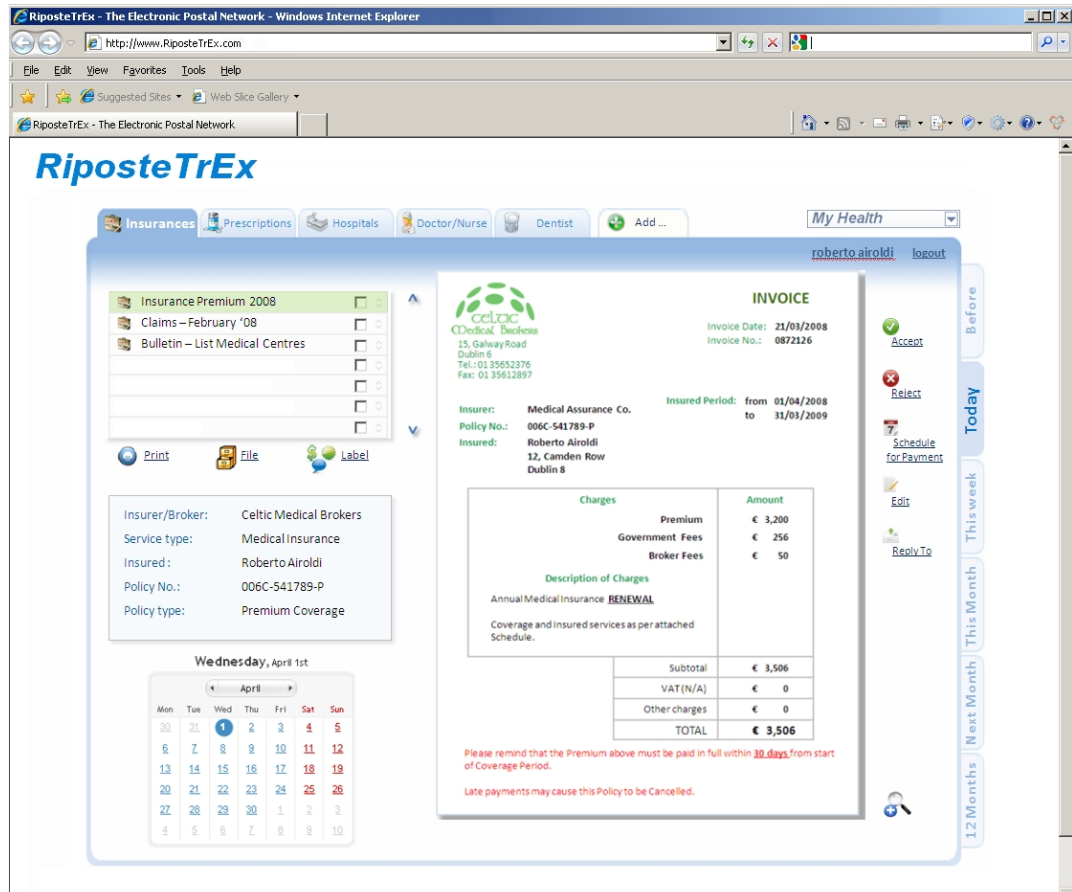
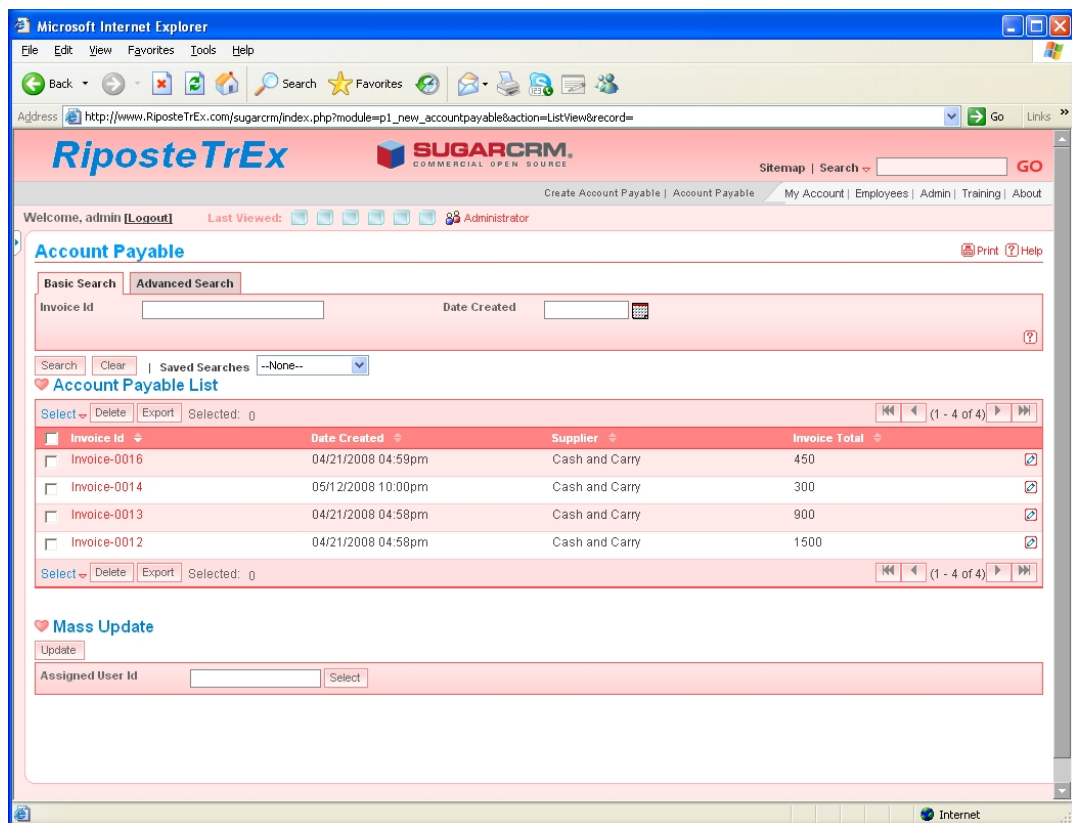
Correspondence Address

Traditional	<u>RiposteTrEX</u>	
Sender / Recipient Address	Sender / Recipient Id (example)	
	utilco9182 jhncztzn54g27x3950 Country Language IE EN	CLEAR / VISIBLE

Correspondence Content

Traditional Correspondence Content	<u>RiposteTrEX</u> Content Data (example)	
	<pre> ACCNO:54273950 INVOICE:002673/08 AMT:85.92 DATA: Dear Customer, Utility Company has recently reviewed your Account and related charges OTHERCUSTOMERDATA:..... </pre>	PROTECTED / ENCRYPTED

RiposteTrEx Product Screenshots



RiposteTrEx Benefits

RiposteTrEx provides Postal Administrations with an efficient mean to support *many-to-many* Transactional Data Exchange between citizens, businesses and communities; thus re-position the Post Office to become the 'trust entity' for the exchange of electronic data as well as of traditional paper-based correspondence.

RiposteTrEx is a suitable framework to conduct business in the modern electronic age. Capable of accommodating national/domestic requirements and regulation, is also universally available and internationally accepted.

By acting as 'mirror' of the traditional paper-based Postal Service, RiposteTrEx is the foundation for a new concept of Universal Service.

By providing a new paradigm for attracting postage fees on electronic correspondence, RiposteTrEx ensure new life to Postal Administration now under threat by the fast growing '*electronic substitution*'.